THE GENESEE FARMER.

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THE GENESEE FARMER.

SATURDAY, MAY 11, 1839.

INQUIRIES, &c.

"EDITOR OF THE FARMER—Sir, in the spring of 1838 I seeded some 60 acres of land with clover; it took well, but, owing to the dryness of the season, it did not grow very large. This year I expect a great growth, and wish this fall to turn under some 25 acres for wheat.—As the land was not in good heart, I had thought all the while I would not pasture it, but turn it all under in the fall. Thinking of it lately, I remembered to have seen in the Genesee Farmer, or Cultivator, much on the ripening of seeds; that the richness or goodness of the land was drawn out or exhausted at this time more than any other, or during the season of ripening; at least such is said to be the case with grain; is it so with clover? If such is the case, had I not better pasture the field for a while and that would keep it back. An answer from you or some of your contributors would very much gratify, Yours respectfully, J. R. SABINE.

Onondaga, April, 1839.

In the preparation of clover leys for wheat, three methods have been adopted by farmers, each of which has its advocates, and each of which has its advantages; and the one to be selected must of course mainly depend on circumstances. The first method is to let the clover attain as large a growth as possible, early in the season, and then roll it down, and turn the whole under. In this case no reference is had to pasture or to seed, and where pasturing cannot be adopted, this course may be followed, as the effect of such a green crop dressing in most cases, is excellent. Some farmers have objected to this, as *souring* the land, but we have never been able to perceive any such effect.

A second method is to allow the clover a good start in the spring, and then depasture it with sheep or cattle, until the time arrives for turning under the clover for wheat. The heads of clover do not in this case ripen to any extent, as they are cropped by the animals; and, as intimated by our correspondent, it is a known law of vegetation, that the nutrition and consequent increase of plants is progressive, until the great end of their growth, the formation of seeds, is completed.—The result is, a constant renewal of growth until arrested by the plough.

A third method, and one that is in use to a considerable extent, where it is desirable to seed the land with clover after the wheat without any intervening crop, is to allow the clover to come so far to maturity as to perfect about half the seed, and then roll it down, and carefully turn the whole under. The advantage in this case, is the re-seeding of the land without the expense of purchasing or the trouble of sowing seed: the disadvantages are, the straw of the clover loses much of its succulency, and is of course much less fit for a green dressing of the soil, while the exhaustion which is always consequent on the ripening of seeds, and which is perhaps more conspicuous in the clover plant, than almost any other, is felt in exact proportion to the advanced state of the clover before turning in. When, however, the soil is in good heart, and the immediate receding of the land is an object, this course is allowable, nd is sometimes found very profitable.

In the case of our correspondent, we should without hesitation say, pasture before turning over, and if it can be done with sheep, so much the better. Some of the reasons why we should prefer this course, may be gathered from the preceding remarks, but there are others which it may be not a amiss to state. Clover, when turned under in any form, rarely undergoes sufficient decomposition the first season to develope its nutritive qualities fully, and therefore its effect on the wheat crop is not as great as if this preliminary process had been performed by mastication and digestion, or partially so, by bruising and trampling previous to covering it with the plough. By pasturing and keeping the animals on the field, there can be but little loss of the actual quantity of nutritive material, and this loss is far more than compensated by the greater efficiency given. Animal manure is more effective than that which is purely vegetable, in promoting the growth of wheat; the salts imparted by animal action are of the most important kind, and these are given to the soil in large quantities where clover is pastured. Much the greatest proportion of the benefit derived from wheat, from the alternation of clover, arises from the decomposition of the roots; and the prevention of the formation of seeds, by the early cropping of the heads, has a direct tendency to impart to the roots greater vigor, and for a longer period, than if the plant was left undisturbed to perfect its seed. We think experience sanctions the course now recommended. One of the more extensive and successful wheat growers in this section of country, relies entirely on his clover, alternating it with wheat triennially, and without the application of any other manure than a top dressing of plaster annually. *He always pastures.*—Some two or three hundred sheep are always kept in his clover fields, and the increasing productiveness of his soils prove the value of the system. His seed he always purchases, maintaining that the loss to his wheat crop from the ripening of the clover seed necessary to stock the land, would more than balance the expense of procuring seed: and he is not singular in his opinion on this subject.

In thus replying to the queries of our correspondent, we hope not to prevent a full expression of the opinion of others; since the subject is one of vast importance to the wheat growers of this district; and it is desirable that the relations existing between, and the influence mutually excited on the soil by clover and wheat should be fully investigated and understood.

IMPROPER MANAGEMENT.

There is with some farmers a disposition to devote their farms exclusively to one crop, or one kind of business, to the neglect of all others; and the crop or business is chosen not so much with reference to probable prices for the future, as those of the present time or the last year. There are cases where exclusive farming of this kind may be justified; as on a sure growing wheat farm, for example, wheat and clover may well be made a substitute for other and inferior crops; but such farms are few, compared with those on which exclusive farming would be ruinous. Exclusive farmers usually manage much in this way;—this year for instance cattle are low and sheep are high, he fancies that there must be the most profit in raising sheep, so he sells his cattle and purchases sheep. In a year or two the scale changes, cattle rise and sheep fall, and his sheep are disposed of at a sacrifice to purchase cattle. One year wheat is low and oats are high; an exclusive farmer the next year sows his whole farm with oats, and is of course obliged to take what he can get for them after the harvest. And so it is with all other crops, and with all kinds of stock. Mr. Colman in his report states that two years since, some families in one of the best towns in the county of Berkshire, were for some time without bread of any kind from the impossibility of obtaining it. They were persons who worked for the large wool growers. They asked for money for their labor; but money was not to be had,because, owing to the pressure of the times, wool could not be sold. They asked for grain, but the farmer had abandoned the cultivation of grain, for raising wool. They asked for pork; but farmers who raised no grain could make no pork. Such is usually the result of exclusive farming. In some years it may do well, but too often in a turn of times leaves the follower in the lurch. Where it can be done, every farmer should produce on his own farm *all* the articles he requires for the domestic consumption; his grain, wool, cattle, horses, roots, &c., leaving as little to chance, or the fluctuations of the times, as may be.

BLIGHT IN FRUIT TREES.

"About twenty years since I commenced raising an orchard, and collected for that purpose the best kind of fruit the country afforded, but to my great mortification, a large portion of my trees, (particularly the apple) died about the time they had fairly got to bearing. I examined them in order to discover if possible the cause of their decay, and uniformly found the roots, a short distance below the surface of the earth, covered with a white mould, that seemed to have completely destroyed the vitality of the tree. I was at a loss to know whether this mould was produced by the disease, or was the actual *cause* of the disease, till 4 or 5 years since, in sprouting my trees early in the spring, I found small insects collected in great numbers about the roots, a short distance from the surface of the ground, and wherever they lay in considerable numbers, I found the roots completely killed, with the bark black, loose and ready to peel off. This insect I find is called by a writer in the Genesee Farmer the *Aphis lanata*, and to it he attributes the blight in the pear and apple trees. It is a small insect covered with long white hair resembling cotton, or the down of feathers. It winters at the root, as before mentioned, and ascends the when the tree leaveshave expanded, and may be seen at any time through the summer among the leaves and small branches. They sometimes assemble in large numbers, and attach themselves to a branch of the tree. In this situation when disturbed they give themselves a swinging motion, at which time they discharge a black liquid, that completely poisons and destroys every tender branch or leaf that it comes in contact with. Persons in the habit of using common earth, or horse manure, or clay, in grafting, should be careful to remove from their grafts these substances, in the October following, for if left till spring, these little pests collect inside the ball that covers the graft and destroy it, and if taken off too late the winter kills it."

We copy the foregoing from a communication by Mr. McElhiney in the agricultural department of the Zanesville Zazette, for the purpose of calling attention to the facts stated, and for correcting an error into which the writer seems to have fallen in regard to this paper; a correction made in substance, by the editor of the Gazette in his notes to the communication.

The *Aphis lanata*, or cottony aphis, is, in all its varieties, and there are several, a very rare insect in this part of the country; and though it is possible it may occasionally be found on the pear as well as the apple tree, we recollect no writer who attributes the disease so fatal to pear trees, and which is by way of distinction termed the blight, or fire blight, to an insect of this genus or family. One variety of this Aphis we have seen on the common bitter sweet, *Solanum dulcamara;* and another on the black alder of our swamps, *Alnus glauca*, the latter being the one best agreeing with Mr. McE.'s description; and either of these make so conspicious an appearance on any tree where they fix themselves, that they would not escape notice, while seeking for the cause of the fire blight of the pear tree.—That this disease is caused by a borer, *Scolytus pyra*, seems most probable, though further examination would seem to be necessary before the fact can be fully established; in any event it is not caused by the Aphis lanata, or any of the species of the Aphis that infest the tender

shoots, buds, and the under side of the leaves of several kinds of trees and plants, so far as our observations have extended.

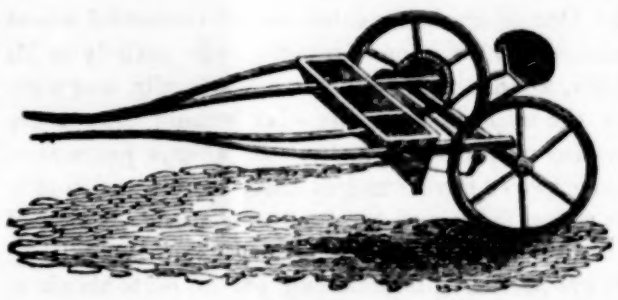
The fact of the *lanata* wintering in the manner described by Mr. McE., is entirely new to us, and we hope new observations on this subject will be made wherever the insect is common. We have noticed white mould on the roots of decaying trees, but this was evidently a *fungus*, and not an insect. We have also noticed the same appearance on decayed spots on apple trees, and the cause in such cases was the same. The use of clay in grafting has been wholly banished from this part of the country; wax being a substitute more portable, and far more easily applied. With the veteran farmer, Mr. Buckminster, however, we are inclined to believe that the clay and horse dung composition was better for the tree, than the wax plaster now used. The base of junction, when clay was used, was certainly broader and more perfect between the branch and the scion, and of course the wound made, healed over more quickly, lessening the chance of a decayed spot on the tree. In no case have we known any injury to result to the graft from the cause pointed out by Mr. McE.; and unless the aphis were found in great numbers should not apprehend any bad results from allowing the clay to remain, but much from removing it. So long as the clay can remain the stump is protected from the atmospheric action, and the union between the scion and stock will be more extensive and firm. The same remark will in a great measure apply to grafting with wax, where the wounds should be kept covered until the formation of new wood and bark permanently closes over the place of the excised branch.

DR. DANA'S LETTERS.

We have read with much interest, the letters of Dr. S. L. Dana of Salem, (a chemist of eminence,) both to Prof. Hitchcock and to Mr. Colman, on subjects connected with the Agricultural and Geological Surveys of Massachusetts. Dr. D. appears to be an inquirer of the right stamp; since to sufficient zeal in his profession he unites a philosophical mode of investigation, and a patience of research, that promises the best results. In the following extract, however, which we make from a letter to Mr. Colman, in the last report of that gentleman, there are some things stated which we think require further proof before they can be considered as undisputed facts. (See report page 164.)

"Dear Sir—I omitted an answer to one of your queries, in my letter of last week. I know of no particular affinity between plaster, or ashes, and *white* clover. The same crop follows a free use of bone manure. The effect is due in all cases to a peculiar development of geine, [nutritive matter]. This substance is probably, like many others, hydro-carbon compounds, an unstable chemical combination, capable of existing in several definite portions of oxygen, hydrogen, and carbon. Now each of these may develop the germination of particular seeds. We know that '*fungi*' always germinate best in decaying wood. Always we find crops of 'fungi' about the decaying stumps of trees. I have noticed that the mop that have been used for swabbing out vessels in which cloth has been dyed with madder, when thrown aside in a moist steamy room, often become covered with beautiful *fungi*. I had occasion last fall to make a decoction of a large quantity of English hay. (It affords a permanent yellow with alumina.) This decoction was made with a portion of alkali, and several times repeated. The hay was then thrown aside in a pile out of doors. In a few days it was filled in all parts with *fungi*, whose stems and roots were often a foot long, mounting up through the pile, and raising the upper layer of hay in large fork fulls. Now both here, and in the madder, the seed existed in the vegetable fibre. Its vegetating power was not destroyed by boiling. It required only a purticular development of geine, to stimulate the germinative power of the fungus seed."

That plaster or bone dust exert a power favorable to the germination or growth of clover seeds or plants, no one can doubt who has used them on those plants; and perhaps the office of these articles in this case, is the preparing of nutritive matter, or geine, for their use. But we very much doubt whether the *fungi* generated in the 'mops,' sprung from seed existing in the madder; or whether the fungi of the boiled hay, existed in the vegetable fibre of the hay previous to the boiling. The cloths, wet with coloring matter, and kept in a moist steamy room, would be an excellent nidus or place of deposit for *fungi* seed; and the destruction of the cuticle of the hay by maceration and boiling, would render such a mass one of the fittest places in the world for the production of fungi. When we remember that this tribe of plants produces millions of seeds, its particles as minute as the smoke of a puff ball (Lycoperdum) may be termed seeds; that more or less of them appear to be floating in the atmosphere at all times during the months of their germination, and indeed at all times, ready for deposition and reproduction, wherever a proper place is found, there seems no necessity to us of imagining the existence of such seeds in the vegetable fibre of hay or madder, or their indestructibility by boiling. No *fungi*, or mould, as it it commonly termed, exist in a perfectly sound cheese; but let a rich cheese crack, or when ripe be cut, and as soon as the air finds its way into the mass, the floating fungi seed take root, and forests of plants that reproduce themselves in a few hours are the result. Like the clover seed alluded to by Dr. Dana, some spots are more favorable to the growth of one fungi than another; and each kind flourishes in its peculiar location. Put clover seed and plaster into a sand bank, and the clover will flourish; cast them into a bog and they are both lost. The place must be adapted to the seed; and the food of the right kind or vegetation will not flourish. To determine these two points, and the causes that render them so, is the true office of chemistry applied to agriculture.



(Fig. 26.)

MACHINE FOR SOWING PLASTER, &c.

Mr. Tucker—I send inclosed in this, a handbill which has a small drawing of a sowing machine that I mentioned to you when I was at your place. It sows plaster perfectly even. I have never tried it with grain, but understand from those who have tried it, that it does its work equally well. The price is thirty dollars. The machine I think is as simple as it can be, and with careful usage will last for years. I have used one two seasons, without any perceptible wear, and have sown thirteen acres in four hours with ease for myself and horse. Oliver T. Hatch is the agent of the inventor. He is living in Ovid, Seneca co., where rights or machines may be had on short notice.

A Friend to Real Improvement.

Varick, Feb. 22, 1839.

From the handbill accompanying the above, we copy as follows:

"A machine was invented and patented the 17th of August, 1835, at Great Bend, Susquehannah Co. Pa., by Julius Hatch, for sowing Plaster, Grain and Seed with a horse or horses as the case may require.

"The above cut is a representation of this machine. It is simple in its construction, and weighs only from 160 to 180 lbs. (except the wheels, which can be taken from any common wagon,) to sow ten feet wide and contain three or four bushels at a time. It is capable of sowing as little as one-fourth of a bushel to the acre, of Plaster or Grain, and can be regulated at pleasure, to sow any quantity required, and will not vary from the roughness of the land, from the gait of the horse, or wind; but the same that is distributed on one foot will be in proportion on a thousand acres, without the slightest variation. There has been forty acres of wheat sown with one of these machines in one day, and twenty-five acres sowed with Plaster in half a day. All the labor in managing this machine, is to put the substance to be sown in the machine and drive the horse."

KENTUCKY AGRICULTURE.

We have received from the respected author, Col. C. S. Todd of Shelby, a copy of the annual address delivered before the Kentucky State Agricultural Society at Frankfort. The subject selected, was the dignity of the profession of agriculture, and the propriety of legislation for its improvement. This is treated in the address in an able manner, showing that Col. Todd is thoroughly acquainted with the subject, and fully aware of its importance. His views of the state of agriculture in Kentucky, and the country generally, are forcibly and clearly stated, and the steps necessary to improve the present state of affairs, are described in a manner that must command the attention of all into whose hands the address may fall.

Kentucky may justly be considered one of the finest farming districts in the Union, yet owing to several causes, one of the most important of which is the employment of slaves instead of free labor, the average products of the soil fall considerably below those on the other or northern side of the Ohio. Col. Todd says—"As evidence of the deep necessity for the adoption of some stimulating measures in relation to our agricultural condition, we have only to advert to the crop which is actually produced in Kentucky, not exceeding on an average 35 bushels of corn, 12 bushels of small grain, 500 lbs. of hemp, and 1 ton of hay to the acre" Less attention has been paid to the cultivation of wheat in Kentucky than most of the other states, the staple grain crop being corn, though perhaps there is no state so uniformly favored with a soil that will grow the best of wheat as this. Cattle, horses, mules and swine, have received the greatest share of attention from the Kentucky farmers, and the success which has attended their efforts, have placed them at the head of the growers of these articles in this country; unless, indeed, so far as horses are concerned, Virginia should be excepted. No where can more beautiful cattle of the improved breeds be found, than in Kentucky; and the spirited efforts made to improve the breed of swine, which constitutes so important an item in the exports of the west, shows that in this respect the farmers of that state will not long be behind those of any other.

We would willingly give liberal extracts from the address before us, but are compelled to confine ourselves to a few limited ones. The first is one relating to the former depressed state of agriculture, and the prominent causes that produced such a result:

"In contemplating the causes which in our own country have led to the low estimate heretofore placed upon the pursuits of agriculture, we cannot fail to ascribe the principal agency to the disrepute in which manual labor is held by those who have been educated for the so called learned professions. Even the merchant considers himself as occupying a higher grade in society, although he is but the *teamster* who is employed in transporting and exchanging the surplus products of the farmer who creates the raw material and in bartering the articles of the mechanic and manufacturer who exerts his labor in preparing the raw material for market. The standard of the farming character suffers injury from the common opinion which attaches to his profession, the want of any intellectual culture or any refinement in manners; and although we may deplore and condemn this unworthy prejudice towards the employment which is intrinsically the most respectable we have reason to confess that too large a portion of those engaged in the cultivation of the soil seem by their conduct to attach little importance to these requisites of character. If as a profession we do not occupy in the community, the attitude of intelligent farmers and accomplished citizens, we have to ascribe the result, in a great degree, to our neglect of the means which would elevate us in society. We have, heretofore, discarded all connexion between science and art as applied to agriculture, and by the neglect of general education have allowed other professions to assume and to occupy the position to which we were entitled. We have disregarded, even the proper measures for training our sons to the exercise of their most exalted privileges as citizens; and to the apathy and ignorance of farmers in reference to the fundamental principles of public policy, we may trace most of the political disorders in the state. It is often said when a young man is supposed to be too dull for what are called the learned professions, that he is *then fit for the plough*. Be it our high aim to establish the converse of this proposition

and were the standard of intelligence among farmer as elevated as their employment is honorable, the day may not be distant when the youth who should be found to want the intelligence and energy necessary to make him a successful farmer, will then be pronounced fit only for seeking his fortunes in some one of the "unproductive"—less dignified—learned professions. With this high object constantly in view and by the adoption of the means which will be adverted to in the further discussion of the subject, the cultivator of the soil may hope to resume the proud attitude which the nature of his profession as well as the approbation of ages has assigned to him."

Our other extract is one in which the author points out some of the best methods of exciting the interests of farmers in their own pursuits, and diffusing among them knowledge and intelligence, which should belong to the cultivator of the soil:

"The endowment of agricultural schools and the circulation of ag. journals is rendered the more necessary from a consideration of the peculiar habits and modes of thinking prevalent among our farmers. As a class of people they have little intercourse with each other; they do not preserve the result of their experiments in books, like mechanics and manufacturers; they have rarely held conventions to concentrate into a focus the lights of the day to be thence imparted through the press to the remotest ends of the republic; they entertain an unworthy prejudice towards the attainments of book farming; they profess to be too old to seek or to receive information upon the great business of their lives, and therefore we must look to the means which shall enlighten the rising generation for any hope of future high attainments in agricultural knowledge. In designating the source of these unpropitious notions among our farmers, we shall perceive at once, the pernicious influence of their reluctance to read agricultural journals; and as if they had designed to set at nought all the maxims of common prudence, we find them encouraging and sustaining nearly 1000 political papers, whilst not more than 20 papers devoted to agriculture are supported by a class of whose numbers and importance are in the inverse ratio of their distinctive journals. The farmer is content to meet his neighbor at the court yard, at the muster, at the election, and occasionally at the fireside in the winter, to converse about his farm and its products, and sometimes about the reason of different modes of cultivation, but he will reject a newspaper devoted to agriculture which conveys to him the *concentrated experience of all the intelligent and practical farmers who have lived in every country and in every age*, and cannot be persuaded to realize that in perusing the pages of the N. Y. Cultivator, the Genesee Farmer, the Farmer's Cabinet of Pa., the Farmer's Register of Va., the Buckeye Ploughboy of O., the Maine Farmer and the N. E. Farmer—the Farmer and Gardener of Balt. and Franklin Farmer, he is conversing at his leisure with those in every age who have made farming both a science and a business. In view, then, of these facts, who can estimate the vast amount of every species of improvement in cultivation, the results of individual exertion for ages, that has been lost for the want of convenient methods of communication; or who will now attempt to calculate the addition that has been made to our stock of agricultural knowledge and wealth by the publications which are now diffusing their light all over the country?"

THE LEGISLATURE.

The Legislature of this state adjourned on the 7th inst. after a session of four months, during which 390 Acts were passed, of more or less public importance. The bill to "*To improve the Agriculture of the State*," came up in the Assembly on the 29th of April, when the following proceedings were had:

The committee of the whole, Mr. McElrath in the chair, again took up the bill TO IMPROVE THE AGRICULTURE OF THE STATE.

The question was on striking out all after the enacting clause of the original bill, with a view to insert Mr. A. Cook's substitute.

After some remarks from Mr. C in support of his substitute, and in reply to M. C. E. Clarke, the question was taken, and the committee refused to strike out—39 in the affirmative.

Mr. Wheeler advocated the bill, and the first section passed, 46 to 31.

The succeeding sections also, down to that prescribing the term during which the members of the Board of Agriculture should hold—which Mr. L. S. Chatfield moved to amend so as to provide for a classification—one to go out each year—which was adopted, and the section, as amended, passed.

Mr. L. S. Chatfield then moved to reduce the salary of the Secretary of the Board from $1000 to $500. The amendment was opposed by Messrs. C. E. Clarke and Lawrence, and rejected, 33 to 44.

Mr. Benham proposed to amend so as to allow the members of the board their necessary expenses while engaged in their duties at the city of Albany, and their traveling expenses to and from the city, which was adopted.

Mr. L. S. Chatfield moved to fix the salary of the Secretary at $750. Lost.

Mr. Hubbard moved to amend so as to give the Board the power to fix the salary of the Secretary, but not to exceed $1000. Carried.

On motion of Mr. L. S. Chatfield, the requisition of semi-annual meetings of the Board was limited to one, to be held in February.

Mr. L. S. Chatfield moved to strike out the section authorising a reward of $500 for the discovery of a mode of preventing the ravages of the grain worm.

Mr. Johnson moved to include the wire worm.

Mr. A. Cook moved to include the cheese fly. Lost.

Mr. Bergen moved to amend so as to offer $500 for for the discovery of a mode of preventing the ravages of both the grain worm and wire worm.

The whole section in question was finally struck out, and the amendment fell.

Mr. A. Cook moved additional sections making it the duty of the board of supervisors in each county, upon the passage of the act, to purchase at the expense of the respective counties, grounds for a course of horse racing, and another arena for bull fights, and to defray the expense of fitting up, laying out, &c. by a tax on the county: Also making it the duty of the board of Agriculture, to purchase and lay out grounds for a state race course, &c., and to select a central location having reference to the best interests of the state, &c.

This amendment was rejected, after debate, during which Mr. Lawrence moved and withdrew an amendment, confining the provision to Herkimer county.

Mr. Hubbard moved to amend by inserting a clause to the effect that such counties as did not choose to form an agricultural society, should be entitled to the same amount of money as is to be allowed to such as do form such societies—to be appropriated to the support of common schools, or to defray county expenses, as the supervisors of such counties may determine.

The amendment was supported by the mover and Mr. A. Cook, and oppposed by Messrs. C. E. Clarke and Lawrence, and lost.

Mr. A. G. Chatfield then moved to strike out the enacting clause of the bill. Lost, 33 to 49, and the committee having gone through with the bill, rose and reported.

Mr. A. G. Chatfield in the house renewed his motion to strike out the enacting clause of the bill, and called for the ayes and noes on the motion, and they were ordered, and the house refused to strike out, ayes 29, noes 60.

Mr. Hubbard renewed his amendnent, noticed above, and on his call, the ayes and noes were ordered, and the motion negatived—ayes 36, noes 57. The doings of the committee were then agreed to, and the bill ordered to a third reading.

On the following day the bill was read a third time and PASSED.

It was taken up in the Senate on the last day of the session, where after the following proceedings, it was LOST, by a vote oi 16 to 13.

The bill *to improve the agriculture of this State* was read a third time.

Mr. Nicholas remarked that this bill had been reported several days since, and had been laid on the table for the purpose of allowing senators an opportunity to examine it. He knew that several senators had examined it, and approved of its details. He had himself given great attention to the subject during the winter, and had had a prominent agency in preparing this bill. Knowing, as he did, from personal observation, in some instances, that in other states and countries a similar system exercised a very beneficial influence on this most important interest, he was highly in favor of its introduction here. At this period, he would not enter into an argument, but would hold himself in readiness to answer any objections which should be made.

Mr. Young said the committee on finance were now ready to report a bill from the Assembly,—(the annual supply bill)—which contained as many clauses with some to be added, as the one just read. Both these bills could not be passed at the present session. He could not conscientiously suffer a bill of this character to pass without a full discussion. The system of creating offices and paying money out of the treasury of the State, under the pretence of benefitting agriculture, was arrant quackery; experience, as well as common sense, proved this. He moved to lay the bill on the table.

Mr. Nicholas called for the ayes and noes, and they were as follows—(several of the senators voting in the affirmative remarking that they did not understand the bill, and voted for the purpose of considering the supply bill.)

AYES—Messrs. Beardsley, Clark, Dickinson, Hull, Hunter, Huntington, Johnson, E. P. Livingston, Pailey, Powers, Skinner, Spraker, Sterling, Van Dyck, Wager, Young—16.

NOES—Messrs. Fox, Furman, Hawkins, Jones, Lee, H. A. Livingston, Maynard, Mosely, Nicholas, Peck, Tallmadge, Verplanck, Works—13.

The Garden an Index of the Mind.

Some old sage writer has said, that if you desire to judge correctly of the character of a man's mind, *go into his garden*, and observe how much order or disorder, how much neatness or negligence appears there. We suspect there is more in this, as a test of a man's mental character, than there is in phrenology or physiognomy. Solomon has said—"I went by the field of the *slothful*, and by the vineyard of the man *void of understanding*; and lo, it was all grown over with thorns, and nettles had covered the face thereof; and the stone wall thereof was broken down." Such was the phrenology of Solomon's time. He considered a slovenly vineyard or garden, good evidence of a slovenly mind, or a mind void of understanding.

You may depend upon it, when you see a man's fields and gardens laid out with good order and taste, and notice the neatness of its cultivation, that *that* man's mind is like a well arranged library—every class of books has its general department, and every book its appropriate place within that department. So with that mental library room—the brain. A good garden is an evidence, that all his knowledge is reduced to system, and is readily at command. His head is not full of cobwebs, but is as neat as a parlor swept and garnished. The external will generally correspond with the internal. A man's plans will appear in his operations. His theory may be judged by his practice. The tree is known by its fruits. It is on these universally conceded principles, that the order and taste which prevail in a garden, are to be regarded as an evidence of the condition of the *garden of the mind*. He who contrives to produce much fruit by cultivating the earth, may be expected to be a valuable man in the community by the fruits of his judgment, counsel and philanthrophy. If he allows no noxious weeds to choke the valuable plants, equally careful may he be presumed to be, that no bad principles are allowed to obtain an ascendancy over the virtuous sentiments of his soul. Such men may generally be trusted; and if the test we have suggested, were adopted as a rule for selecting citizens as magistrates and rulers, there can be little doubt, that we should have better *order* in government, and less of the confusion of party strife than we now have. Too many of our moral and political vineyards, are grown over to thorns, and the defences of virtue and patriotism are like stone walls broken down. In the general rush and scramble for the fruits of office, the plants and trees which produce them are too often ill treated, bruised, trodden down and well nigh destroyed. A good cultivator, does not cultivate any thing in this slovenly style.—*Maine Cultivator*.

Will Parsnips grow on wet Land?

Who can answer this question from any experience of his own? We are induced to ask it in order to have the experiment tried by those who have *light* wet land, such as peat bogs, &c.. which are drained during summer sufficiently to operate upon. We have an idea that such soil is the best for them, from the fact that most of the wild plants that are most nearly allied to this, grow naturally in such soils. And also from the fact of having once discovered a luxuriant growth of the common parsnip growing wild on a meadow.

The seeds had ripened in a garden on or near the banks of a stream which flowed through the meadow, and had been washed down upon it—had taken root and were flourishing finely in that situation. The soil where they grew was not so "*clung*," and heavy as in some other parts of the meadow, being mixed in with a quantity of saw dust from a saw mill above. We hope that some one who has the means and the time to spare will try an experiment in regard to this plant and let us know in the fall how he succeeded; and while he is about it, put in a variety of other seeds and ascertain the results. We do not *begin* to know as yet, in this State, what our low lands and our peat-bogs are capable of doing for us.

They are generally preserved now for *frog pastures* and *mink parks*, and they are of course prolific in *music* and *fur*, but these are the *luxuries* rather than the necessaries of life. It is time that they were converted to a better use.—*Maine Farmer*.

COMMUNICATIONS.

EDUCATION OF FARMERS.

Mr. Tucker—I have, for several years, been fully convinced that neither lawyers, nor physicians, nor clergymen, nor professors of colleges, nor any other class of the community, have so many inducements, or so many facilities for becoming really intelligent, scientific men, as farmers. No class of men have an occasion for so constant, or so extensive an application of science, in their profession. Botany, mineralogy, geology, chemistry, natural philosophy, entomology, and the natural history of animals generally, are brought into use, directly or indirectly, by every farmer, almost every day he is engaged in his business.

If it should be asked, what the farmer has to do with botany, the question may be answered by asking another, viz: If the farmer has nothing to do with botany, or a knowledge of vegetables, who has? Does not the whole success of his business depend upon a knowledge of the various plants he cultivates, together with many in the way of cultivation? Some may ask, how can geology be used by the farmer? The first object of geology is to give a knowledge of the component parts and of the structure of the earth, and of course of the nature of soils. The question might be answered by a volume of facts; I will give but one. In New Jersey there are extensive tracts of land now worth from fifty to a hundred dollars an acre, which, a few years ago, were not worth fencing; the application of marl has effected the change. Except for a knowledge of that, the land would have continued as worthless as at first.

What use has the farmer for chemistry? A great part of his business is a series of chemical experiments. Not a furrow turned, no manure applied, not a fence made, nor root or a plant preserved or prepared for food, without an application of chemical science. But what has the farmer to do with natural philosophy? Every plough, harrow, rake, hoe, scythe, axe, cart, wagon, yoke or harness, not constructed according to the principles of natural philosophy, imposes unnecessary labor upon man or beast.

And can entomology, or a knowledge of insects, be applied to farming? In the year 1837, a single species of insect, the wheat fly, cost one state, Pennsylvania, several millions of dollars. The canker worm, the grass hopper, the cut worm, and numerous other insects, frequently present themselves, though small, yet powerful enemies to the farmer, who of course, has occasion to understand their weakness, while he has such fatal proof of their power. The horse, the ox, the sheep, swine and other domestic animals the farmer has occasion to understand, both in health and disease.

Some parts of the mathematics the farmer has daily occasion to use in his business. Practical geometry, in one form or another, comes in almost constant use in farming operations. A portion of arithmetic, is, of course, indispensable.

But some may say, perhaps, that however important and necessary an extensive knowledge of science may be to the farmer, he has not the facilities for acquiring it. Is that possible? Is not the daily use of any science or art, the best of all possible modes of obtaining a familiar and thorough knowledge of it? It may be questioned, even now, whether farmers do not possess a greater amount of really useful knowledge, than any other class of the community. They certainly have not so many technicalities of science. They have not so many Latin and Greek terms to apply to things or the laws which govern them, as those devoted exclusively to scientific pursuits. But do they not know as much of things themselves? Cannot almost any farmer give the best scientific botanist much useful information about plants?

The graduate of a college may know, that what we call oak, the Romans called quercus, and that the Greeks called it drus, and still be unable to distinguish oak from chestnut. The plain unpretending farmer, though ignorant of the terms applied by the Greeks and Romans, to these useful products of the forest, could readily inform the scholar, whether a tree or a stick of timber was oak or chestnut, and whether it was white, red, grey, black, Spanish or some other oak. Also what were its properties and uses. Of course the difference between the scholar and farmer is that the former has three terms but not an idea; while the latter has but one term and a great number of ideas connected with it. The question then comes who is the man of useful knowledge and sound learning, the ignorant farmer or the learned scholar? However it may be with others, no farmer will hesitate for an answer. It may be added, that this is not merely a supposable case, but one which actually exists in thousands of instances in our country.

The first steps requisite for rendering farmers the most truly and the most generally enlightened, as they are much the largest class of the community, is to have them understand and appreciate the knowledge they already possess; the second is for them to improve that knowledge and the natural advantages they enjoy for acquiring more. And what are these advantages? First, a farm is a far better place for acquiring really useful knowledge, and for acquiring it more thoroughly than any hall of science, which is or can be constructed and furnished by the hands of men. It is a "Cabinet of Nature," more richly furnished with specimens, and a laboratory where chemical and philosophical experiments are going on upon a larger scale, than can be found in any High School, Academy or College.

Second, the business of the farmer, if he guides it by the hand of science, and by careful observation, furnishes means of instruction which can be found in no other profession. The laws of animal and vegetable physiology, of chemical science, of mechanical philosophy, hydrostatics and of natural science generally, can be intimately and daily developed by experiments which furnish his bread and his success in business, not only without cost, but with great satisfaction and pecuniary profit.

Third, the winter evenings of farmers, if properly occupied by reading, experimenting, and comparing the statements of books with their own experiments and observations, would furnish ample time and opportunities, for storing the mind with principles, or the general laws of science, to direct their summer operations. These evenings are spent far more profitably, if aided by "Social Lyceums," or weekly or semi-weekly meetings of some ten or a dozen, or even five or six neighboring farmers, for the purpose of conversation, experiments and reading on subjects previously selected for the purpose.

Fourth, as a school of morals the farmer certainly has the best. The best proof of this is its results. Whether colleges, academies, and high schools, may or or may not with propriety be considered schools of morals, industry, health and of useful knowledge, farms are certainly schools peculiarly favorable for the whole.

I have here given a few brief hints on a great and interesting subject connected with the highest prosperity and the liberties of our country. On some future occasion, if time and circumstances should permit, I may enlarge upon the subject, and shall remain, in the mean time, with high esteem, Your friend,

J. Holbrook.

Cure for Murrain and Yellow Water.

Dillon, Tazewell co., Illinois, April 18, 1839.

Mr. Tucker—Having seen here in one of your numbers an alleged deficit in information on the fatal diseases among cattle, called murrain and yellow water, I beg leave (pro bono publico) to subjoin the following:

For Murrain—Glauber salts 1 lb.; nitre and cream tartar, in powder, each, 1 oz.; ginger pulvis 2 oz.; treacle (molasses here) 4 tea spoonsfull, mixed for a dose. If it does not succeed in 24 hours, strained turpentine 4 oz.; Armenian bale bay berries, and red saunders, in powder, of each 2 oz., mix in a mortar, and beat into a proper consistency for the *bale* or *ball*.

Taken from the notes of Capt. George D. Porter of the British Navy in 1829, who, until he tried this, was losing every hoof he had in Tyrone county, north of Ireland—lost none afterwards. My father has a great number of mountainous farms there, and ascribed the hale condition of his cattle very much to the constant bleeding, which the herds, reckless of the Apostolical injunction "to abstain from blood," &c., practiced for eating the same.

For Yellow Water, or blood with urine, arising from bad or sanded hay—1st, drench—Barbadoes aloes 1-2 oz.; common salt 4 oz.; ginger 1 drachm; water 1 quart; anodyne carminative tincture 2 oz.; or substitute for the latter 1 table spoonful of opium. 2d, drench—Epsom salts 6 or 8 oz.; water 1 pint; castor oil 8 oz.; cream, or *half made* butter, with the whey, as a substitute for the oil, and 4 oz. common salt, substitute for the Epsom salts. A wine glass of brandy or gin, will do for the laudanum or tincture, and as cattle are not the subjects of moral government, the Temperance society (of which I myself highly approve) will not object. With best wishes for the furtherance of the laudable objects your paper has in view, I remain, respected sir, Yours very sincerely,

John Boyle.

Preparation of Seed Corn and Clover Seed.

Lynchburg, Va., April 25, 1839.

Mr. Tucker—I will answer an inquiry made by one of your readers in a former number, which is the best mode of applying tar to seed corn. I have pursued the following method for more than 30 years, and believe it has not only prevented the depredation of birds and insects, but benefitted my crops by giving the plant a more vigorous growth. Take a tub that will hold water, pour half a bushel of corn in, designed for seed; then on the top of the corn place a lump of tar about the size of a turkey's egg; pour on one gallon of hot water; stir well until properly mixed; draw off the water; pour out the corn on a clean spot of earth, and stir in plaster until the grains are disengaged from the adhesive property of the tar, and your seed is ready for use.

I pursue a course somewhat similar with my clover seed. I have a light trough prepared for the purpose, say 3 feet in length, ten inches in the clear, 10 inches deep, and 10 inches wide, and hollowed out 2 feet, which I have taken in the field, and which can be moved about as wanted. I then make a solution of tar water by dropping a lump of tar the size of a walnut into a gallon of boiling water, which is stirred until the tar is dissolved. I take this solution, together with the seed and plaster into the field; pour a peck of seed into the trough, make them thoroughly wet with the tar water; then mix in plaster as with the corn, with this difference that the seed is mixed in the trough instead of being poured on the ground, and your seed is then ready for sowing. The object with the clover seed is to cause as much plaster to stick as possible. I have tried sowing the seed each way, without and with the mode stated above, and am so fully persuaded of the advantage of preparing the seed as above described, that I have adopted it altogether. I know we are very much disposed to be partial to our own way of managing, and I assure you if I have any prejudice in favor of the above described modes of managing seed corn and clover seed, it has grown out of the experience of many years. I therefore submit them to you with more confidence; if you shall adjudge them worthy a place in your columns and they shall be beneficial to any, I shall be satisfied; but if you decide otherwise, it will meet with my approbation, for the effort is only in accordance with the obligation which I believe rests on us all to endeavor to advance the interest and happiness of each other.

George Markham

On Roads and the Location of Farm Buildings.

East Hill, Tompkins co., N. Y., May 6, 1839.

Mr. Tucker—Perhaps there are few things in which a thorough reform would be more beneficial to the public or conduce more to the respectability and interest of the farmer especially, than in the article of roads and the proper location of farm buildings. This subject, whose name is legion, has on some points been well noticed by L. A. M of Lansing. As a pioneer in this too long neglected branch of the public service, he has done nobly, and I would be content to have him follow up this well aimed shot with another broadside from a pen which needs no aid on any subject which falls under his cognizance. But practically acquainted as I am with the every day demands upon the time and attention of the farmer, it is fair to presume that some parts of this fruitful subject may escape his notice, though no less deserving a passing remark. It is to be regretted that friend M. did not begin with the *road* before he brought the "barn butt up to it." The fact is, it would seem that "*retrenchment*" in the article of roads, if nothing else, has become the order of the day, or in plain English, not one highway in ten has it's clear legal width, and worse still, one half of them have but little, if any, more than a moity of their just dimensions, and sad to say, some not even that. Now the consequence of this injudicious suicidal policy is, that many of our most public roads are little better than mere alleys, better calculated for driving geese, or some other mud-loving animal, than for the free, commodious passage of the independent American farmer—too narrow and contracted to receive at a proper time in summer the faithful application of the labor "duly assessed," and which is more frequently *stayed out* than performed; the roads are left as nature formed them, and in winter, of all the seasons the one in which farmers most need good roads, these *substitutes* are filled from fence to fence with as beautiful snow as you shall see of a winter's day. Now, the farmer wants good roads to carry his produce to market, draw lumber, rails, lime, plaster, and last, though not least, to visit, while these apologies for roads are impassable for weeks or perhaps months. Now I submit the question, who is to blame for all this? Not the law surely; that, with some few exceptions, requires a width of four rods or sixty-six feet, clear of all obstruction such as fences, stakes, posts, saw logs, boards, rails, wood piles, &c. to say nothing of the everlasting addition of "butt up" barns, pig-styes, wagons, carts, ploughs, and horse powers. These are bad enough in all conscience, but there is a still stronger exhibition of this taste for innovation in the erection of wagon houses and horse barns, directly in the public highway, the doors opening parallel with the line of the road, makes them very convenient and easy of access, but woe to the luckless wight whose necessities lead him first to pass one of these public nuisances after such a storm as some of our Lapland winters afford. At such times the scanty part of the road, *remaining out of doors* at these points, is always filled with a snow drift as regular as winter comes, and it is one of the most enduring proofs of the farmer's patience and forbearance, that these things can be submitted to without complaint or attempt at reform. Here too, you may find the usual assortment of dilapidated farm gear, the hay rigging and grindstone, together with such old wagons and other implements, as have to give place to the new wagon and cutter, all scattered in most delightful confusion about the precincts of this same convenience, called a wagon house. In most happy accordance with the preceding, you will usually find at the same place an erection of a story and a half, broadside to the road, with an aperture which answers the double purpose of free ingress and egress for the hogs, and ejecting the stercoraceous deposits into the street, This is dignified with the appellation of corn house, or hog pen. Now, sir, with all due deference to the opinions of others, I must be permitted to say, that thirty years experience has fully satisfied me that nothing is gained by such calculations, and I will venture the assertion, that no farmer ever yet made more money by encroaching on the road, and making the world at large his hog pasture, than he could by placing his buildings and fences out of the public highway, and the simple contrivance of a snug clover lot—and that his whole stock is more troublesome and less profitable when suffered to vegetate on the public common, than when kept under the wholesome restraints of good fences and good feed, two important articles which always grace the premises of the intelligent and successful farmer; and hence their obvious superiority to street pasture in point of interest and economy. In the one case you have fat horses, sleek cows, and good pork; in the other, a second edition of Pharaoh's lean kine, frames of hogs with three legs, one eye out and no ears, the miserable subjects of sport to every knavish boy that can throw a stone or set a dog at them. Now, let a spark of just pride animate the bosoms of our farmers, and let correct views of their real interest and respectability press upon them to make the experiment, and my word for it, no more barns will be put, "built up to the road." Stables, wagon houses, hog pens, and corn houses, will occupy their proper places, and look just as well *standing a little back*, while the public highway will proudly swell out to its lawful and proper dimensions, affording at all seasons an easy and convenient passage for all, and to none more necessary than the farmer.

Alpha.

Dictionary of Terms used in Agriculture.

Mr. Tucker—I intended, ere this, to have expressed my unqualified approbation of the "Dictionary of Terms used in Agriculture," as published in the Farmer. The undertaking does Mr. Gayorld honor, and I take upon myself to say, that the execution, thus far, is admirable, and will be of great utility to every farmer who wishes an accurate knowledge of every term applicable to his profession.

Science has introduced so many *jaw-breakers*, otherwise hard words, which the great mass of your readers do not comprehend, that a dictionary to define their meaning is indispensable. As a farmer who boasts of not knowing *too much*, and unlike some of his brethren, *willing to be taught*, I thank you for making a beginning, and hope you will not stop till the bottom of the alphabet is reached.

In order that the object for which it is designed be fully realized, every farmer when perusing an article having any terms in it which he does not comprehend the meaning, should at once refer to the dictionary and there ascertain. To this end, he should file his Farmer in some safe and convenient place, and then it will cost little time, as words are defined in alphabetical order. Do you think this, my brother farmer, is taking too much trouble? Do you wish to know every thing possible to know appertaining to your profession? Would we not consider it strange enough to go into a store of merchandise, and the merchant should not know the names of his wares? or the mechanic, and he not know what to call many of his tools? Were it so, they would be termed blunder heads and not masters of their business. But I am aware, from the few scientific works applicable to agriculture which have been published—and those of an expensive character—that farmers have an ample apology for not knowing any more than they do; and for this reason I so much appreciate the Dictionary, which will be elementary, and therefore do something towards filling the great vacuum.

There are great and shining lights now held out in the path of the farmers, which, if they avail themselves of, will lead them to a more eminent stand in the scale of society, as well as profit them in the knowledge connected with their vocation; these lights are District Libraries, and Agricultural Publications. In this republican country of ours—and God grant it may always be one—where there are no artificial titles to confer distinction, knowledge and virtue are the grand levers which elevate and ennoble. Let us, then, instead of spending so much time hanging about stores, devote it to reading the books we shall obtain from the District Libraries, and by our example impress upon the minds of our children the advantages which information confers Knowledge bringeth wisdom, the foundation of usefulness and honor. We shall no longer be the tools of heartless demagogues; the pettifogger and counter jumper will not then say, "stand thou aside; you are nothing but a farmer; we are more respectable and learned than thou!"

A Practical Farmer.

Lake Ridge, Tompkins co.

Raising Potatoes and the Use of Plaster.

Sidney Plains, Delaware co., April 26, 1839.

Mr. Tucker—Having become a subscriber to your valuable Monthly Genesee Farmer, I have taken the liberty to give you a brief sketch of the good success I had in raising a potatoe crop last summer. It is by study and practice that the farmer can make proficiency in the great art of agriculture.

On the 15th of May last, I planted one quarter of an acre with potatoes, of the orange and pink eye kind. I selected potatoes of the largest size for my seed. I cut each potatoe in two pieces. I planted in each hill three pieces—putting two pieces of the orange and one piece of the pinkeye in each hill. The land had been in pasture for three years. I ploughed the piece twice in the course of the spring and harrowed it once after the first time ploughing. I had my rows north and south. At the time of planting I put a table spoonful in each hill. I hoed them once. I plastered the tops or vines twice, once in June and once in July. I harvested my crop the first week in October, and had 124 bushels of the first quality of potatoes. Considering the severe drouth of the last summer, I have no reason to complain of my crop. I offer no advice, nor do I direct, for I know there are thousands of farmers in our happy republic, that are as well versed in agriculture as myself. Respectfully yours, Wm. S. Johnston.

From the Sangamo Journal.

Important to Farmers.

There are few of our farmers who have not witnessed the fatal effects among cattle, of a disease known as the *mad itch*. It has sometimes carried off the most valuable stock; and all efforts to arrest the disease appeared to be useless. We think we can now lay before our stock raisers a remedy for this disease. It was discovered by Mr. David Simms, a farmer, living on Lake Fork. Considering it valuable to the public, he has handed us the annexed noti e of it for publication. We would suggest to our farmers to preserve it—as it may prove of more value to them than the amount they would be required to pay for a dozen volumes of the Journal.

To the Editor of the Sangamo Journal:

The undersigned takes this method to inform the farmers and all those who raise cattle, that he has discovered a cure for the mad itch, a disease which is often fatally destructive to that species of stock. Last winter was two years, when I had four cows attacked with the above complaint, and I tried every thing I could think or hear of to cure them, but with no good effect. This winter another of my cows took the same disease, which I discovered early one morning; and as soon as I discovered it, I gave her as much soot and salt as she would lick, and in a few hours after, I gave her from 3 quarters of a pound to a pound of pulverized brimstone. In the morning following, I gave her as much salts. The cow is now well, and is as hearty as any of my cattle. It is my opinion that sulphur itself will cure, or sulphur and salts given in the way prescribed. The cure was effected in about a week. The remedy operates severely for two or three days as a purge.

To those who are not acquainted with this disorder, I will inform them that it first comes on with a kind of hiccoughs or jerks at every breath. The brute jerks itself full of wind; frequently licking their sides and back; occasionally rubbing their heads; and if not stopped, in five or six hours, they rub with apparent maddess and continue to swell until death takes place, which will be within about ten or twelve hours after the attack.

This cure is from experience, and I give it for the good of my fellow citizens. Davin Simms.

Logan County, 15th March, 1839.

In transplanting fruit trees, the trunk should slightly incline towerds the south-west, so that it may be shaded from the hot rays of the summer's sun.

The Cocoonery—Fixtures—Feeding Silk Worms.

BY GIDEON B. SMITH.

(Concluded from page 142.)

Cleaning the Hurdles.—As soon as they appear to have revived, some large fresh leaves should be laid on them, and as soon as they attach themselves to the leaves they may be removed to clean hurdles, by laying hold of the stems of the leaves, as above directed. For the two first ages, this is the best plan for cleaning them. However, many persons never clean them at all till the third moulting. It should, however, be observed that, where much litter and filth has accumulated, the hurdles should be cleared of it, for if warm damp weather occurs, it will be likely to cause fermentation and disease in the worms.

After the third and fourth moultings, the most convenient mode of changing and cleaning the hurdles is, to place a net-work hurdle immediately over the worms—so near them, that they can readily ascend upon it through the meshes, and place fresh leaves on it; the worms will soon get upon the fresh hurdle, and the lower one may be drawn out, and the filth carried off.

Until after the two first moultings, the worms will occupy but a small space; they will require about double as much space after the first moulting as they occupied previously, and should be distributed to it when the hurdles are cleaned. For example; the worms that occupied one hurdle or table fully up to the time of the first moulting should be distributed on two hurdles when they revive; after the second moulting, they will require four or five; after the third, ten to fifteen; and after the fourth, thirty to forty, or even more.

The cocoonery should be divided into three parts, or, at least, the worms should be kept in three distinct portions—say one portion in each end, and one in the middle—that each day's hatchings may always be kept by themselves. When the several day's hatchings have been kept promiscuously together, the mouldings are irregular, and the formation of cocoons very inconveniently so. Besides, the worms that are moulting are distasted by the feeding of those that are not, or the latter are injuriously kept without food. A successful result can scarcely be secured without attending to this.

The air in the cocoonery should always be kept *dry and pure*, and this is one of the difficulties to be encountered, that sometimes baffles the best exertions. Happily for the silk cause in our country, we are blessed with a climate peculiarly dry, and consequently better adapted to the production of silk than any other country except the north of China, and not less so than that. But we do often have times of damp, drizzly weather, and we must then resort to the use of fire. Mr. Whitmarsh's cocoonery is supplied with hot air furnaces under each end, from which he can, at any time, let hot and dry air into the room, and thus expel the damp air. I am well convinced that this is a very far better plan than stoves or fire-places. But, whatever mode of drying be used, it must be applied whenever the air is damp, at all times during the feeding of the worms, but more particularly when they are spinning their cocoons, or beginning to spin.

I have never seen this part of the art of silk making treated with sufficient force in any European work. Writers generally refer to it, as a desirable condition of the atmosphere, but seem to attach little importance to it. Mr. Whitmarsh, in his late excellent little treatise notices it, and enforces the necessity of a dry atmosphere with great judgment and propriety; as also does Mr. Ruffin, in the Farmer's Register. I am glad to receive the countenance which the concurrence in my opinions of such gentlemen affords. A writer in the last number of this Journal, (Dr. Emerson,) also enforces its necessity by explaining clearly and philosophically the reason of it, and I will now only refer the reader to his remarks. There is one point, however, which he has omitted to notice. The silk fluid, as it leaves the apertures of the worm, requires the aid of a dry cool and pure atmosphere to make perfect silk. Before it is exposed to the air it is a thin viscid fluid, and without the aid of the air would remain so. Now if the air be very damp, its proper effect will be more or less prevented, and the silk will be flimsy, and of a very inferior quality; on the contrary, if it be dry, cool and pure, the silk will be of the best possible quality. When we dry the air by artificial means, it is true it will be warm; but it is better to be warm and dry than cool and damp. But when heat is used to expel moisture, a free circulation can be kept up which will be of great benefit.

Formation of Cocoons.—We now come to the mounting of the worms and spinning of the cocoons. I believe the best and cheapest contrivance for the worms to spin on, is small wisps of rye straw, about a foot long, tied firmly together at the lower end and spread out at the other. These are set in rows about a foot apart, across the hurdles or shelves, with their tops spread out and pressing against the bottom of the shelf above to support them in their places and to keep the straws spread apart. On a hurdle or shelf five feet long and two and a half wide, there will be three wisps in the rows across, and five rows, making fifteen to each hurdle. I was formerly in the habit of using broom corn straw, with the seed cleaned off, the stem cut off close to the junction of the straw, and the top spread out as in the above, and always found the worms to do well with it. Mr. Whitmarsh, however has tried both, and gives the preference to the rye straw. The worms readily climb into and spin their cocoons among the branches formed by the straws, and the cocoons are readily gathered from them.

Cocoon Frames, &c.—I have never seen any of the numerous *frames* that have been reccommended for this purpose, but from the descriptions I have had of them, there appears to be several objections to them, viz: the trouble and expense of preparing them, and the labor of gathering the cocoons from them. The frames that seem to obtain most favor are those made by tacking lath edgewise across the bottom of the shelves, two inches apart, and then preparing small ladders of twine leading from the shelf below to the laths. It is said the worms readily climb these ladders, and spin their cocoons in the angles formed by the laths and the bottom of the shelf. It must be obvious, however, that a great deal of labor will be required to prepare them. I should suppose each frame would cost as much as all the cocoons it would contain would be worth. It is needless to be more particular with this part of the subject, as I have found that every body who has fed silk worms, has had sufficient genius to suggest an apparatus of some kind for them to spin on; and it is very rare that we find two persons who use exactly the same—and this fact leads to the inference that the worms are not very particular in this respect.

The time of spinning will be ascertained by the appearance of the worms. They will become somewhat transparent, of a slight amber color, cease eating, hold up their heads, apparently looking about for some object above them, and occasionally leaving fibres of silk on the leaves. Whenever these indications are observed preparation should be made for their accommodation with the wisps of straw or other means. But few will ascend at first, but in the course of the first and second day they will nearly all have mounted. They must be looked to occasionally, and those that do not readily mount should be put upon the straw by hand. The room should be darkened and kept so from the commencement of the spinning, as they always mount and spin more readily in the dark than in the glare of light. If the weather be dry the ventilators should also be opened and as much air given them as possible, without producing a current of wind. If the weather be damp it should be dried, and kept so till the cocoons are finished.

During the whole process of feeding and spinning, the cocoonery should be kept quiet; but this is particularly necessary while the worms are spinning. I once tried an experiment of the effect of a sudden shock upon them while spinning. When they had been two days at work, I let a large weight fall upon the floor; it made a loud noise, and jarred the house considerably. On reeling the cocoons, I found the fibre was broken invariably, when they were about half wound off. Various other experiments satisfied me that they require quietude to enable them to finish the cocoon with an uninterrupted fibre.

The worms generally require about four days to finish the cocoon; but they should generally be left undisturbed six to eight days from the time of the last of their mounting, when the cocoons should be gathered and reeled immediately, or cured for future reeling.

Curing the Cocoons.—Various expedients are resorted to for smothering the chrysalles in the cocoon. In Europe, they bake them in ovens constructed for the purpose—the heat being regulated so as to prevent scorching the silk. The heat of the sun in this country is generally sufficient to kill them, and it is reccommended as the simplest process by various writers. They spread the cocoons out for several days to the sun, until they become dry, when they may be put away in a dry room for future use. Great care is necessary, however; for, if they are not killed, the moths will make their way out of the cocoons, and thus spoil them; and if the cocoons be stored before the chrysalles are sufficiently dry, the moisture will spoil the cocoons. A little experience will enable any one to judge when they are properly cured. When they are thoroughly dry or cured, the chrysalles can be rubbed into powder with the thumb and fingers. Believing this plan to be best, it is deemed unnecessary to describe the others.

If time allow of its being done, the cocoons should be reeled without curing, as they reel much more easily than when dried.

Providing Eggs.—Before curing the cocoons, enough should be selected to produce eggs for the next season. They should be *the best;* for, we must infer that the worm that makes the best cocoon was in the best state of health, and will be most likely to have the most healthy progeny. Two hundred and thirty cocoons will make an ounce of eggs, or 40,000; but in selecting them, it is best to take two hundred and fifty for each ounce of eggs required for next season, that due allowance may be made for losses from various circumstances, such as death of moths, &c. These cocoons should be spread out on a table, and in about ten days from the time the cocoons were finished, the moths will come out, and couple, when they should be placed on sheets of paper, the room darkened, and left to themselves. They will separate of themselves, and the females will deposite their eggs on the papers. As soon as the papers are covered with eggs, they should be rolled up, and placed in some metal or earthen vessel, and kept in a cellar or ice-house till wanted next year. Be careful not to close the vessel air-tight, or the eggs will be *killed*, as they require the aid of air just as much as animals do.

Rats, mice, ants, and roaches are destructive to silk worms in all stages of their existence, and must be guarded against.

Silk worm eggs, are not injured by any degree of cold; but they should not be exposed to great changes of temperature suddenly; for this reason, they should be put in a cellar or an ice-house, and kept constantly there till wanted for hatching. If kept in an ice house from the time they are first laid, they may be kept from hatching till the latter part of the next summer, and thus successive crops may be reared. I am not prepared to say, however, that successive crops will be found profitable. I still believe that one crop, at the proper season, will be found ultimately the most profitable. I also think it very probable that keeping the eggs from hatching much beyond the natural period, will be very likey to injure the constitution of the insects. If this plan be resorted to, therefore, I would reccommend that eggs for next year's use be always produced from the first crop. This plan will obviate all difficulty on that score, as the worms of the first crop will never be subjected to the protracting treatment. Besides, you will then always be sure of a supply of eggs for next year, whatever accident may befall the succeeding crops.

Diseases of Silk Worms.—The French and Italians describe many diseases to which silk worms are subject and attribute them to various causes. Cleanliness and pure dry air, however, are the only preventives, as well as remedies, and it is, therefore, deemed unnecessary to go into details. Those who keep their cocooneries properly ventilated, and free from damp, and their hurdles clean, will have no diseased worms; or, if disease does occur under such circumstances, there is no remedy for it, the cause being attributable, probably, to some mismanagement of the eggs, or the worms from which the eggs were obtained having been unhealthy. When disease is caused by foul air, arising from filthy hurdles, or other effluvium, the cause of the foul air must be immediately removed, by cleaning the hurdles, and removing the filth, and sprinkling the floor with a solution of either the chlorides of lime or soda. The diseased worms should also be immediately removed.

It is a good plan to have a couple of day's supply of leaves always gathered beforehand; so that, in case of rain, feeding with wet leaves may be avoided. The importance of avoiding wet leaves will be learned from experience by all who neglect the precept.

I must conclude this long chapter with the remark, that, notwithstanding the long time necessarily occupied in the description, the practical operator will find the whole art of raising silk worms exceedingly simple, and easy of performance, and entirely within the capacity of the most ordinary persons. Little children readily comprehend, and can *perform* the whole, after once practising it; and they would never require adult supervision, but for their liability to negligence. All capacities are capable of *performing*, but few of directing the work. The art of silk-making, though simple and easily acquired in all its parts, requires the strictest attention, that every act, though extremely simple in itself, be done at the proper time, and in the proper manner.

Cure for Sheep Poisoned by "Lambkill."

In the spring of the year, sheep and lambs are very apt to eat the green leaves of the low laurel or lambkill as it is sometimes called.* This brings on a retching or vomiting of a greenish fluid which the sheep again swallows down. The animal begins to swell and becomes stupid—refuses to eat or drink, and finally dies. As soon as a sheep is discovered to be sick, and to throw up this fluid above mentioned, fix a gag in its mouth, by taking a short stick or a corn cob, tie a string at each end—put it into the mouth and pass the string up over the head of the sheep, so as to keep the gag in and the mouth open, this prevents them from swallowing. A dose of weak liquid ammonia is very good. Roasted onions put under the fore legs are also beneficial. A communication by Mr. Newman of Worcester, Ms. in the last number of the N. England Farmer, reccom-

mends a strong decoction of the bruised twigs of white ash, given in doses of two spoonfulls to a sheep, especially if administered within twenty-four hours after the sheep has eaten the poison.

For some reason or other, sheep are not so apt to get poisoned *up east* here, as they are *down west*, although have an abundance of both sheep and laurel. Yet we have seen a whole flock here, prostrated by eating the leaves of the plant in question, and some of them died in spite of all our care.—*Maine Farmer.*

It is the *Kalmia angustofolia* of Botanists.

From the Farmers' Cabinet.

The following has been extracted from a very recent English publication of merit, written by A. Walker, and forwarded for publication in the Cabinet.

CATTLE

The best cattle have the face rather short; the muzzle small; the horns fine; the neck light, particularly where it joins the head; the chest wide deep and capacious; the tail broad and flat towards the top, but thin towards the lower part, which it will always be, when the animal is small boned; the lower part of the thigh small; the legs short, straight, clean, and fine boned, though not so fine as to indicate delicacy of constitution; the flesh rich and mellow to the feel; the skin of a rich and silky appearance; the countenance calm and placid, denoting the evenness of temper, essential to quick feeding and a disposition to get fat.

Every breed of animals which has, through a few generations (two or three is sufficient) been overfed, requires similar feeding; and the offspring of such animals require and can digest more food than others, who have lived upon little.

All growing animals, including mankind, ought to be sufficiently well fed to preserve health and strength, but never to be stimulated by excess of food. The children of parents, however, who have through many generations, been well fed, would perish if given no more food than would be sufficient for an Irish or Highland Scot's peasant child.

The chief qualities sought for in cattle are the tendency to fatten on little food, and that to yield abundance of rich milk. The tendency to fatten is indicated chiefly by the capacity of the chest. Animals of all species says Mr. Knight, all other qualities being equal, are, I think, capable of labor and privation, and capable of fattening, nearly in proportion, as their chests are capacious; but the habits of ancestry will operate very powerfully.

It is the width and depth of frame, says Mr. Berry, which confers weight, and not the mere circumstance of great height. While equally great, if not greater weights, can be obtained with shorter legged animals, they are, independently of other recommendations, generally found to possess better constitutions and greater prospensity to fatten.

Mr. Knight says, the constitutional disposition to form fat, is certainly hostile to the disposition to give milk. Cows which gives little milk often present large udders, which contain much solid matter; and, to inexperienced eyes, a two year old Hereford cow would give a promise of much milk, where very little would be given. A narrow forehead, and a long face, nearly of the same width from end to end, as in the Alderney cow, certainly indicates much more disposition to fatten.

Fat animals are more generally those of the north, where cold diminishes sensibility. Fat indeed, appears to be the means which nature very extensively employs to lower sensibility by interposition between the skin and the central parts of the nervous system. Fat animals, accordingly, have not only less sensibility and irritability of the skin, but of the organs of sense generally. Thinner animals, on the contrary, are more generally those of the south, and have more acute sensibility and exquisite sensation.

In reply this observation, Mr. Knight says, I do not doubt but you are right respecting the use of fat in cold climates; all sleeping animals, through winter, go to sleep in a fatted state. I do not think that breeds of cows which give much rich milk, are very hardy. The Alderney cows are what the Herefordshire farmer calls very *nesh*, that is, very incapable of bearing hardship of any kind, and particularly cold, consequently of greater sensibility.

Cows which give much milk have the power of eating and digesting much food, and they require, whilst they give much milk, a very abundant and good pasture. The breeds of cows which give less milk, and present greater disposition to become fat, are generally less *nesh*, and will fatten upon less food. The influence of the *feelings* is very considerable. I have observed that whenever a young Hereford cow disliked being milked by the dairymaid, she soon ceased to give milk; and I do not doubt that, in all cases, if the calves were twice every day permitted to suck after the dairy maid had finished her labor, the cows would longer continue to give milk and in larger quantity.

This tends to corroborate what has been said as to greater sensibility being favorable to milking.

If this led only to distinction of these two kinds as to milking, namely—that of fatness and thinness, and that of smaller and larger organs of sense and greater or less sensibility, it would still be valuable, as showing, either at a later or an earlier period, what we may expect in this important particular. But perhaps its utility may extend still further, and enable us to improve the race.

It may form a basis for our determining whether, in endeavoring to improve a breed, fatteners may most easily also become milkers, to some extent; or milkers may, to a similar extent, become fatteners; and what are the circumstances which would most favor such partial interchange, if not absolute improvement. Indeed from these principles I would conclude, that an animal fattening in the north, would become a better milker in the south, where a more genial temperature would render fat less necessary, would increase sensibility, and would cherish the secretion of milk, so intimately connected with that excitement of the reproductive functions which warmer climates produce.

As these two desirable qualities are both dependent upon one system, and as they are opposed to each other, (for excess of one secretion is always more or less at the cost of the other,) they will be most easily obtained by being distinctly sought for, and the animal of diminished sensibility will most easily fatten, while the animal of increased sensibility will most readily yield milk.

These views are confirmed by the conduct of the London dairy-men. While they acknowledge that the Alderneys yield the best milk, they keep none of them, whatever they may pretend, because these animals are peculiarly delicate, and more especially because they cannot, after being used as milkers, be fattened for the butchers. The York and Durham cows suit them best.

In certain constitutions, however, and, *to a certain extent*, there is a compatibility between fattening and milking.

Mr. Knight says, the disposition to give much and rich milk, and to fatten rapidly, are *to some extent* at variance with each other; but I have seen cases in which cows which have given a great deal of rich milk, have given birth to most excellent oxen, the cows themselves, however, always continuing small and thin whilst giving milk.

I very confidently believe in the possibility of obiaining a breed of cows which would afford fine oxen, and would themselves fatten well; but, as great milkers require much more food than others, the farmer who rears oxen, does not think much, perhaps not enough, about milk, and is in the habit (which is certainly wrong) of breeding his bulls from cows which have become his best, owing only to their having been bad milkers.

In the selection of bulls, besides attending to those properties which belong to the male, we ought to be careful also, that they are descended from a breed of good milkers, at least if we wish the future stock to possess this property.

New Importation of Italian Spring Wheat.

We publish below, an extract from a letter written by F. I. Sloane, Esq., at Florence, Italy, in November last, to his correspondent at New York, sent accompanying the spring wheat, of which he writes. We congratulate our agricultural readers, upon the opportunity which again presents of renewing their seed through the agency of this individual who originally introduced the excellent variety, known as *Italian Spring Wheat.* Mr. Sloane relates a fact that will doubtless be new to most people in this country, and which may prove a valuable addition to our producing resources, viz. that the *Leghorn Straw* is the straw of this *identical wheat.*

"I have also the letter of Messrs. Davis, Brooks & Co.. to which I will attend with all possible care. For this commission I must thank you most particularly, as it is quite in my way, and has afforded me a most delightful occupation in directing my researches towards a branch of agricultural industry in Tuscany, with which I was not previously acquainted. This spring corn, (wheat,) which your correspondent (Mr. Hatheway,) wants, is cultivated entirely in the rich, but hilly districts of Tuscany, where the seasons are very late; and it is the same which, sown very thick in the poorest soils on the southern steeps of the calcarious Appenines, in the neighborhood of Florence, furnishes the straw of which the famous Leghorn hats are made. I have procured forty bushels of *the very best that could be had*, which I will take care to have cleaned with all possible attention, and put into ten casks made expressly. I hope to have them ready to be embarked on board an American vessel which I am assured will sail from Leghorn at the end of next week. It is but fair, however, to forewarn you, that the harvest was bad and the crop was scarce last year, and that the wheat is not as white, as plump, and as heavy, as usual."—*Rome Telegraph.*

Mildewon Grapes.

Mr. A. J. Downing of Newburg, in a communication in the April No. of the *Magazine of Horticulture*, gives the following "novel method of preventing Mildew on foreign Grapes." The same novel method was several times recommended in the Genesee Farmer several years since.

"A person about four miles distant, who rears a considerable quantity of Sweet Water, Chasselas, and other foreign grapes, for market, and who was formerly much troubled with the attacks of the mildew, was some two or three years since, while reflecting on the subject, struck with the fact, that, with him, young vines, when they first came into bearing, generally produced good and unblemished crops for the *first* one or two seasons. After this, becoming comparatively feeble, the mildew began to appear, and gradually grew worse every following season.

Reflecting upon this suggestion, thrown out by nature in the above instance, it occurred to him, that if he could always keep his vine young and thrifty, or by some means provide himself with a succession of such vines, he might place the mildew, in a great measure, at defiance.

This he has been able to effect in the following way, the results being highly satisfactory. In the month of June, every year, he selects, on every vine, a clean shoot, (left the previous summer for that purpose,) some five to eight feet in length, which he buries in the earth, about 18 inches of its middle part, in the common method of *layering*. The plants in his little vineyard are planted in rows, and the layers being made in the line of the rows, between the old plants, when they are rooted, which they are the next year, they are tied up to a stake to receive a partial training. The next, or second season, all the old plants are dug up and thrown away, if they are not perfectly strong and vigorous. In this way he preserves a constant stock of strong new vines, which are able, by their superior vigor, to resist the attacks of the mildew, and which, as we can testify, bear beautiful and abundant crops of fruit, free from mildew."

Hulling Machines.

There is an opinion too prevalent in many parts of Maine, that nothing but wheat, rye, and Indian corn, is fit to make bread of. And these three sorts of breadstuffs, and especially wheat are relied upon, as the staple for supporting life. Other people in many parts of the world, support life to a good old age and bring up a hardy and robust progeny, with but a moiety of the wheat, &c. that we employ. They bring other grains into use and employ many other products of the vegetable kingdom, which we know but little about.

There are two other grains which may be used to good advantage but which have not yet been much employed in Maine, viz:—Oats and barley. These when hulled and properly prepared make very good bread, and may be used as a substitute for rice, &c. in many culinary preparations. But how can they be hulled? By a hulling machine. And who has got one? Indeed, instead of finding one as we ought, in every grist mill, we can hardly find one in the whole State.

The Ken. Co. Ag. Society, last year offered a premium of $20 to the person or persons who should put a good one in operation within the county, and they chose us a committee to correspond with any whom we ascertained had one, or who would be likely to know much about one.

We found but three—one in Ohio—one in St. Johnsbury, Vt.—and one in Camden, in this State. The Messrs. Fairbanks of St. Johnsbury Vermont, we are told, have one in operation which does good business, and that the use is much increasing among the farmers of that vicinity—a proof that it is an advantage. Mr. John Mercer of Harrisville, Harrison Co., Ohio, has invented one which he recommends very highly, and Mr. James Andrews of Camden, in this State, has invented one which he says does good execution.

We have no sort of doubt, that a good hulling machine in every grist mill in the State, would pay a good profit to the owner. All that is wanted is to have them introduced and for the public to become acquainted with their use. We hope that the proprietors of mills will exert themselves to introduce the machinery necessary for hulling oats and barley, and we have no doubt that the public will employ them enough to make it a profitable investment.—*Maine Farmer.*

The Silk Worm.—According to the Silk Culturist, Judge Spencer, the past season, raised 40,000 silk worms and lost but 4.

Disease in Turkies.

Almost every person likes a good roast turkey, and as they are, like the great *biped* who devours them so greedily, subject to diseases in order to know how to treat them and ward off their fatal effects. We were this spring in possession of a fine Gobbler of the India breed, which we had of friend Moses Taber, of Vasselborough, who by the way, raises the genuine—the real Simon Pures, as white as milk and a '*leetle*' whiter. He was a brave fellow, and he strutted and he gobbled and he gobbled and strutted, and stuck his *elbows* out, for all the world like some of the *great bipeds* of society, as much as to say "*who but me?*"—when all at once he grew sad and dumpish—in a short time was really sick, and ate but little. The wattles about his neck appeared of a black color, and he was excessively thirsty—drank cold water almost constantly. Not understanding the diseases of such patients, we let him alone, giving him often some soft dough of Indian meal; but he died in spite of that, and we concluded to have a *post mortem* examination. On opening him we found nothing at all in his crop. His gizzard was crowded very full of grass and gravel stones—every thing else was right except one side of his heart; one side was full and on handling it, burst open, and a large piece of white coagulated matter fell out. It was more hard and solid than cheese curd, and it completely filled up one auricle, we have forgotten which, but we believe the left. This undoubtedly was the immediate cause of his death, for we doubt if the blood could circulate through that portion of the heart. But what caused it?

Salt it is well known will kill turkies. What action does it have on the system or blood? Mr. D. Longfellow, of this town, told us, not long since, that he found some of his turkies had been picking up salt which was scattered out of some clover hay, he having put more on it, when stowing it away than dissolved. His description of their symptoms was similar to what appeared in ours. He cured them by giving them ashes in their dough. Will some Turkeyologist give us more light on this subject? as we are loth to lose the life of our turkeys before roasting time.—*Maine Farmer.*

The Privileged Classes.

We have, in the United States, say the journals of the day, eighty-eight colleges, twelve law schools, and ninety-six medical seminaries, thirty divinity schools, and somewhere about one thousand academies, more or less sustained by legislative bounty, for the almost exclusive benefit of the learned professions, which do not comprise, probably, one-twentieth part of our population. We have not a single college, seminary or school, for the particular improvement of the other 19-20ths of our population—the farmers and mechanics—who earn our wealth, pay our taxes, and fight our battles—although,—we speak it in the spirit of truth, the country would be more benefitted, in its wealth, in its morals, and in its politics—far more benefitted—by extending to the laboring classes a higher standard of learning, in what especially concerns their business, than it is from the aid which it now gives to the non producing classes. It is a republican maxim, that all should participate alike in the public bounty. But the maxim has not as yet been adopted by our legislators.—*Cultivator.*

To prevent Sheep Catching Cold after being Shorn.

Sheep are sometimes exposed to cold winds and rains immediately after shearing, which exposure often hurts them. Those farmers who have an access to the sea, should plunge them into the salt water, those who do not have that opportunity, and whose flocks are not very large, may mix salt with water and rub them all over, which will in a great measure prevent any mishap befalling the animal, after having been stript of its coat.

It is very common in the months of June and July, for some kinds of sheep, especially the fine Leicester breed, which are commonly thin skinned about the head, to be struck with a kind of fly and by scratching the place with their feet they make it sore and raw. To prevent this, take tar, train oil, and salt, boil them together, and when cold, put a little of it on the part affected. This application keeps off the flies, and likewise heals the sore. The salt should be in a very small quantity, or powdered sulphur may be used instead of it.—*Yankee Farmer.*

ELECTRICITY.—The Journal de la Haye relates, as a remarkable phenomenon, that during the storm on the 8th of January, in which the tower of the church at Hasset (Holland) was struck by lightning, the farmers and laborers who were on the dyke between Zwolle and Hasset, perceived for several moments before the discharge of the electric fluid, that their own clothes, with all the trees, ships' masts, and other objects around them were covered with electric fire, which disappeared the moment the tower was struck.

From the Cultivator.

Great Crop of Potatoes.

Middlefield, Mass., March 13, 1839.

MR. J. BUEL—Dear Sir—Having read with interest, the various experiments, as detailed by your correspondents, and published in the Cultivator, I thought I would contribute my mite, by giving you the account of an experiment which I made the last season in raising potatoes. The piece of ground upon which the experiment was made, contained eighty-two rods, planted the previous year to corn, yielding about twenty bushels of unsound corn. Upon this ground I spread nineteen loads of compost manure, and ploughed it in; I then threw it into ridges of three and a half feet width, planting the hills on each side of the ridge, thus * * * * * * * * * * * * hills twenty inches apart. The ground is naturally dry, and the severe drought of last season must have contributed to lessen the crop. The account stands as follows:—

Dr. To carting and spreading manure,		$2,00
ploughing and ridging,		2,00
11 bushels seed,		3,75
planting,		2,00
hoeing,		2,00
5 days' harvesting,		5,00
manure,		7,00
Interest on land,		1,25
Total,		$25,00
Cr. By 340 bushels of potatoes, at 25c.		$85,00
Deduct,		25,00
Profit,		$60,00

I contemplate making other experiments the coming season, with the different root crops, and if successful you may hear from me again. Yours respectfully.

EBENEZER SMITH.

TO SILK GROWERS.—A Treatise on the Mulberry Tree and Silkworm, and on the Production and Manufacture of Silk, embellished with appropriate engravings, a new work by John Clarke, containing pp. 366, just published and for sale at 12, Exchange-st., by [may11 4t*] WM. ALLING.

Agricultural Warehouse and Seed Store.
79 *Barclay-street, New-York.*

AT this old established stand, the subscribers take pleasure in announcing to the public, that they have made extensive arrangements to accommodate farmers in all articles connected with husbandry, viz:—Agricultural implements, a full and fresh supply of Field and Garden Seeds, Fruit Trees, Durham Cattle, Chinese and Berkshire pigs, 10,000 Morus multicaulis Mulberry trees; Publications on Rural subjects, &c.

Published here the Rural Library, S. Fleet, editor, a few copies of 1st vol. for sale. The object of this work is to constitute a Library at the least possible expense. 2d vol., commencing with Professor Low's Elements of Practical Agriculture, with nearly 250 fine engravigns; subscription $3. Subscriptions received for the Genesee Farmer, Cultivator, &c. &c. J. W. WEAVER & CO.
☞ April 20-wm1y 76 Barlay-st, New-York

Improved China and Berkshire Pigs.

THE subscriber keeps constantly on hand and for sale the above very superior hogs. They are the very choicest kinds of England and America, and are universally preferred by all who pay the least attention to the improvement of their stock.

The Berkshires are large, easily weighing 400 to 600 lbs., according to keep, at 18 months old, and grown hogs of this breed have been sold the past year in Kentucky from $200 up to $500 per pair. The China are a smaller race and much finer in their points than the Berkshire, and weigh at 18 months 300 to 400 lbs. They are celebrated for the delicacy of their meat, easiness to keep, and aptitude to fatten, and for producing a more rapid improvement in crossing with the common hog than any other breed known.

If called upon, the subscriber will give the most satisfactory reference of the perfect purity in blood of the above animals, and the superiority and care of his breeding, and residing as he does at the great shipping port of the lakes, Western gentlemen, in addressing their orders to him, will make a considerable saving in the charges of feed and transportation.

Prices of Berkshire pigs per pair, 6 to 8 weeks old, caged and shipped, $20 00
China do., 15 00

When taken at the farm without box, $2 per pair less will be charged. Crosses of the above with each other called the Tuscarora, and in England the Tonkay breed, at 15 to 20 dollars per pair.

Pigs will not be considered as engaged unless the amount of them is remitted at the time of ordering, or reference given. *Address, post paid,* A. B. ALLEN.
Buffalo, March, 1839.—mar 9 m3t w9t

As the subscriber intends hereafter to confine his breeding exclusively to the Berkshire and China, he will sell his crosses of the Lescicester with the above. Pigs six to ten weeks old, $8 @ $12 per pair, and grown breeding sows of the same at $15 @ $30.
Buffalo, 23d April, 1839.—ap 27 w3tm2t A. B. ALLEN.

Mulberry Trees, &c.

WM. PRINCE & SON still have the following trees for sale.

35,000 genuine Morus Multicaulis trees, from 1 to 6 feet high, which will be sold either trimmed or untrimmed, or in cuttings. The wood of these trees is perfectly mature and they have been well preserved from all injury.

42,000 genuine Alpine trees of a very superior character, at least equal, to any in the Union.

10,000 of the splendid Morus Expansa, 5 to 9 feet high and much branched, remarkable for its great excellence in every respect. This is the only large parcel of this tree existing in this country.

75,000 Canton, Brussa, Morus Elata, Rose of Lombardy, Roman, Pyramidalis, Oriental, White Italian and other kinds—all of which will be sold at prices deemed moderate.

Also a large assortment of the Silk Worm's Eggs, of the most choice and valuable kinds.

Ample directions for the culture and successful propagation of all kinds of Mulberry trees will be given to every purchaser.
Flushing, near New-York, April 17, 1839. ap 27 4t

Morus Multicaulis.

THE subscriber has 5 000 genuine Morus multicaulis plants healthy and thrifty, which he offers for sale on reasonable terms. Having the advantage of water communication through the Cayuga Lake and canals, he can box and forward them to any place desired.

☞ Orders *post paid* will meet immediate attention.
Aurora, Cayuga co., April 27, 1839. L. H. GORHAM.

Great and Timely Arrivals!

AT THE ROCHESTER SEED STORE.—The subscriber is happy to inform his friends and customers, that he has just received direct from England, a very large supply of imported Seeds, of such kinds, and in such quantities, as will meet the demands of the public, and of such quality as cannot fail to give satisfaction. Among them are,

1,500 lbs. English Purple Top Ruta Baga,
800 lbs. English and Scotch assorted Turnep,
650 lbs. Mangel Wurtzel,
300 lbs. French White and Yellow Sugar Beet,
175 lbs. Long Orange, and Altringham Carrot,
150 lbs. Yellow Dutch, and White Portugal Onion,
500 lbs. Cabbage, Cauliflower, Broccoli, and Radish,
450 lbs. White Dutch Clover, Trifolium Incarnatum.

Also—New Orchard Grass, Pacey's perennia and Italian Rye Grass, Spring Tares, Potatoe Oats, Winter Oats, many new varieties of Peas and Beans, together with a multitude of smaller articles.

Also—Nearly one hundred varieties of the choicest English FLOWER SEEDS. (These will speedily be put up in small papers, price 5 cents each, 50 cents per dozen.)

Also—Just received, a good supply of THORBURN'S CHINESE TREE CORN, and ROHAN POTATOES.

Orders already received will be immediately attended to.

All orders from a distance must contain a remittance, or good reference in this city.

☞ Agents will receive new supplies as soon as possible.
May 1, 1839. M. B. BATEHAM.

☞ *Oswego Agency.*—M. B. EDSON, Druggist, Oswego, is Agent for the Rochester Seed Store. A good assortment of Seeds may be found there.

Morus Multicaulis.

FOR SALE—One thousand five hundred genuine Morus Multicaulis trees, with cuttings on them; they are of thrifty vigorous growth, the wood well ripened. They are choice trees.

Also, 10,000 Morus Multicaulis cuttings for sale, if applied for soon.

Fruit and Ornamental Trees, Shrubs, Green House Plants, &c. for sale as usual. ASA ROWE.
Greece, Monroe Co., March 7th, 1839. m1tw6t

Seed Store Agencies.

GENERAL assortment of Garden, Field and Flower Seeds, put up at the Rochester Seed Store, may be found at the following places; and printed Catalogues can be had on application:

Buffalo..W. & G. Bryant.	Nunda..W. M. Chipman.
Lockport..S. H. Marks & Co.	Canandaigua..B. P. Clark.
Albion..Rathbone & Clark.	Geneva..J. N. Bogert.
Brockport..Geo Allen,	Waterloo..Abram Deuel.
Batavia..J. V. D. Verplanck.	Auburn..Horace Hills.
Le Roy..Tompkins & Morgan.	Palmyra..Hoyt & May.
Attica..R. & N. Wells.	Newark..E. B. Doane.
Perry. L. B. Parsons & Son.	Syracuse..T. B. Fitch & Co.
Geneseo..J. F. & G. W. Wyman.	Utica..J. E. Warner.
Mt. Morris..R. Sleeper.	Oswego..(will be supplied soon.)

All the ordinary kinds of seeds are put up in small papers as usual and those kinds mostly wanted in larger quantities, are put up in packages by weight. Persons wishing other kinds, or larger quantities, may leave their orders with the agents and the articles will be forwarded.

The character of these seeds is now generally known, and the increased demand for them is their best recommendation. But for the benefit of those agencies that are newly established, I would say, that if these seeds, on fair trial, do not prove superior to those generally hawked through the country, I shall be satisfied that *seven year's experience* has failed to teach me the trade, and will quit the business. M. B. BATEHAM.
Rochester, N. Y., April 1st, 1839.

☞ Subscriptions for this paper will be received by all the above named agents of the Rochester Seed Store.

To Farmers.

PRODUCE STORE.—The subscriber has removed his Store from the corner of Exchange and Buffalo sts., to No. 33 Exchange st., near the Canal. Where he will pay cash and the highest prices for Timothy and Flax Seeds, Corn, Oats, White Beans, Pork, Butter Lard, Hams, &c.

Just received, a superior quality of Large, Medium, and Small Clover Seed, and a quantity of clean Timothy Seed.

Farmers are respectfully invited to give him a call before purchasing or disposing of the above articles elsewhere.

SIMEON P. ALCOTT,
Rochester, April 4th, 1839. [6t] Agent.

Fruit Trees for Sale.

THE subscriber respectfully informs his friends and the public that he has for sale at his Nursery in Rochester, Monroe county state of New York, a large quantity of Fruit Trees, grafted and inoculated with the most approved kinds, now fit for transplanting, which he will sell on the most reasonable terms.

April 15, 1838. SAMUEL MOULSON.

N. B. Cash will be paid for a few thousand two years old APPLE TREES.

Morus Multicaulis.

A FINE lot for sale; also, a few English Hawthorn of large size, a very desirable lot, by S. MOULSON,
February 27. Front-street.

Monroe Horticultural Garden and Nursery.

GREECE, MONROE COUNTY, N. Y.

THIS establishment now comprises over 20 acres, covered compactly with trees and plants in different stages of their growth.

The subscriber offers to the public a choice selection of Fruit Trees, of French, German, English and American varieties, consisting of Apples, Pears, Plums, Peaches, Cherries, Apricots, Nectarines, Quinces, Currants, Gooseberries, Raspberries, Grape Vines, Strawberries, Ornamental Trees, Shrubs, Plants, Hardy Roses, Vines, Creepers, Herbaceous Perennial Plants, Bulbous Roots, Splendid Pæonies, Double Dahlias, &c. &c.

Also, a large collection of Green House Plants, of choice and select varieties, in good condition.

Orders respectfully solicited. Trees and Plants, when ordered, are carefully selected and faithfully packed, and if desired, delivered on the Canal, one mile from the Nursery, or at Rochester.

Orders for Mr. Rowe's Nursery received by the publisher of this paper.

Catalogues will be sent to every applicant, gratis, or may be had by calling at the office of the Genesee Farmer
April 1, 1838. [ASA ROWE.